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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,974	03/30/2004	Nobuhiro Tani	P24802	2992

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EXAMINER

LEUBECKER, JOHN P

ART UNIT	PAPER NUMBER
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3739

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/811,974

Applicant(s)

TANI ET AL.

Examiner

John P. Leubecker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/7/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Specification

1. The abstract of the disclosure is objected to because the phrase "There is provided" should be deleted. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claims 6-9 are objected to because of the following informalities: in appears that "horizontal transferring charge coupled device" in claims 6-9 would more appropriately be changed to "horizontal transferring unit" (as per the specification) to alleviate any confusion of separateness between such and the concurrently claimed "charge coupled device". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 5-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Parulski (U.S. Pat. 5,523,786).

Parulski discloses an image pick-up device (34) which can be in an endoscope (col.1, lines 13-20) including a frame transfer (note Fig.5) CCD which has a plurality of cells (col.4, lines 22-28), a light source (26a,26b,26c) capable of emitting excitation light and a controlling

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system (38,40,42,52,54,28,Fig.3) which controls the CCD so that charges accumulated in two or more of the plurality of cells are added together when the excitation light is used (col.4, lines 49-53). As to claims 5-10, note driving circuit (38,40), detection amplifier (50), correlated double sampling circuit (52), vertical registers (37), and horizontal register (36) and function described in column 4, line 49 to col.5, lines 54.

5. Claims 1, 2, 4 and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Okada et al. (US 2004/0263645).

Okada et al. disclose an endoscope (10) including an interline CCD (15) with a color filter ([0016]), a light source (35), and a controlling system (11,12) which controls the CCD so that charges accumulated in two or more of the plurality of cells are added together and a combination of filter elements to which two or more cells added together correspond is changed between an odd field and an even field in an interlace scan image signal ([0016],[0035]). Since each filter element correspond to the pixel units ([0005]) the number of cells whose charges are added become an integral multiple of the filter elements. Memory (26) stores line read-out information ([0031]) which, by corresponding association of each filter element with each pixel, constitutes information concerning a repetition pattern of the filter elements.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 10, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyon et al. (2003/0164441) in view of Cline et al. (U.S. Pat. 6,821,245)

Lyon et al. disclose an image pick-up device (70, Fig. 2A), a light source (something has to be generating the light that the image pick-up device is detecting) and a controlling system which controls the CCD so that charges accumulated in two or more of the plurality of cells are added together ([0037]). The device can be used a color filter with each filter element covering a pixel (Figs. 10A, 10B, [0065]-[0067]). Since there is one filter element per pixel, the number of cells whose charges are added together becomes an integral multiple of a number of filter elements of the color filter. In addition, the circuitry and software must know (i.e., store) the filter repetition pattern in order to properly aggregate the pixels in a coherent manner. Whether hard-wired or kept in a software device (e.g., note microprocessor control [0034]), such parameters representing the filter pattern are “stored in memory”.

Lyons et al. disclose an image sensor *per se* with no specific purpose. Cline et al. disclose use of a color CMOS image sensor in an endoscope (col. 6, line 65 to col. 7, line 3) which desirable includes a pixel binning function to intensify dim images (col. 11, lines 35-45). Since Cline et al. teaches that use of such binning capable color CMOS image sensor has been contemplated in the endoscope art, it would have been obvious to use the Lyons et al. device in an endoscope. Inherently, the endoscope would include its own light source since ambient light is not available inside a body.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

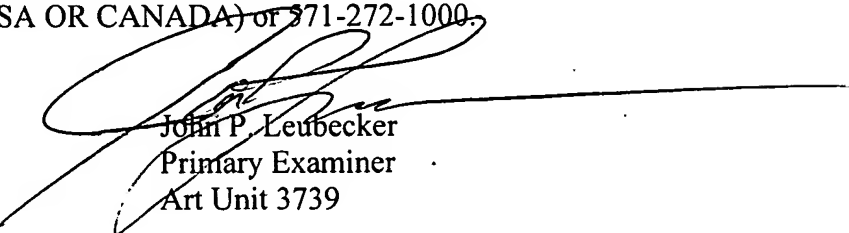
Tinnerino et al. (US 2004/0012688)	Hakamata (U.S. Pat. 6,529,768)
Shipp (U.S. Pat. 5,394,187)	Palcic et al. (U.S. Pat. 5,827,190)
Neter (U.S. Pat. 6,888,568)	Morinaka et al. (US 2003/0133028)
Shibazaki et al. (U.S. Pat. 6,999,119)	Taniji (U.S. Pat. 5,485,204)
Sugiki (U.S. Pat. 5,278,660)	

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (571) 272-4769. The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John P. Leubecker
Primary Examiner
Art Unit 3739

jpl